bution to the National Forests until September 8, when they were terminated because of the general rains which set in over the State on that day and night, making the warnings no longer necessary.

Fire-weather warnings were sent to the forest supervisor at Cass Lake, Minn., from September 7 to 9, inclusive, for use of the National Forest in that vicinity; and to the State forester at St. Paul, Minn., beginning with September 29 for distribution to the State forests

under his supervision.

Because of the unseasonably warm weather during the month of September general frost warnings were not necessary. They were, however, sent to the northwestern States on several days where the temperature was low as compared with other portions of the Chicago District. These warning swere, as a rule, fully verified.

While the temperature in the Wisconsin cranberrymarsh region was considerably above the normal during most of the month, nevertheless frost warnings were necessary upon several dates. By the end of the month the crop had been harvested in practically all the marshes and the growers gave the usual credit to the Weather Bureau for its advices, which made it possible for them to flood their properties in advance of all critical temperatures. As a consequence there was no loss suffered through frosts.

Several letters have been received from the growers testifying as to the value of the warnings and extracts

are given from two of these.

Mr. C. L. Lewis, manager of the Badger Cranberry Co., Beaver Brook, Wis., writes as follows:

I have just completed my harvest for 1921 and am glad to report that I have now under cover a very nice crop which will amount to about 1,800 barrels, with a very good price in prospect. Mr. Colton is also through and we will not need further frost warnings this season.

I will take this occasion to thank you for the valuable service that you have rendered us during the season just passed, and I hope that you may favor us with a visit during the coming year so that we may show you how we have progressed since you were last here.

Mr. Alexander E. Grimshaw, of Mather, Wis., sends the following contribution:

These warnings are distributed as soon as received by means of telephone service and are sent over the several lines whereon the marshes are situated. The value of this service can not be overestimated. Many times in event of sudden changes and severe frosts these warnings have been the means of saving the crops and have resulted in the savings of thousands of dollars. It would be looked upon as a great calamity to all growers of cranberries should the service be discontinued.—H. J. Cox.

### NEW ORLEANS FORECAST DISTRICT.

The weather was free from damaging winds on the Texas and Louisiana coasts and was unusually warm. Neither storm warnings nor frost warnings were issued or required, but a warning of northerly gales at Tampico, Mexico, was issued on the morning of the 7th, in connection with a moderate tropical disturbance, and was instified.

The feature of the month was the torrential rainfall in central and southwestern Texas on the 8th-10th, due to the tropical disturbance which passed Tampico on the 7th, moving north-northwestward from the southwestern portion of the Gulf up the Rio Grande Valley and causing a mass of warm, moist air to move with more than normal velocity against the abrupt elevations of central Texas. Forecasts of precipitation, based on the movement of the disturbance, were made for south Texas on the 7th, 8th, and 9th.

In general, the conditions were unfavorable for extended forecasts for the benefit of harvesting and other interests, but on the 21st a forecast of fair weather in

Oklahoma for the following 60 hours was issued. Fair weather prevailed as forecast.—R. A. Dyke.

## DENVER FORECAST DISTRICT.

An unusual number of Lows advanced across this district from California or the southwestern portion of the Rocky Mountain Plateau, while, with one exception, all of the Highs that affected the weather conditions in the southern Rocky Mountain States approached from the coasts of Washington, Oregon, or northern California. Generally light, scattered showers occurred in portions of the district from the 1st to the 3d, the 11th to the 13th, on the 15th and 16th, the 17th and 18th, and the 23d and 24th. More general rains set in over Arizona on the night of the 29th–30th and extended northeastward to southern Utah and western Colorado by October 1, with excessive amounts in western Arizona.

Forecasts of frosts were issued for the higher elevations, as follows: On the 3d, for Utah and northern Arizona; 4th, southern Utah and northern Arizona; 8th, northern Arizona: 10th, Colorado, New Mexico, northern Arizona and Utah: 12th, Utah: 13th, Colorado and Utah: 20th Colorado, northern New Mexico, northern Arizona, and southern Utah: 21st, northern New Mexico, northern Arizona and Utah: 29th, northern New Mexico, northern Arizona and Utah. Warnings of frosts at all elevations in eastern Colorado were issued on the 11th; in northern and western Utah on the 16th and 20th; the western valleys of Colorado on the 21st and 26th, and for the entire State of Colorado on the 29th. Forecasts of freezing temperatures in the mountains of Colorado were made on the 6th, 8th, 10th, 17th, and 26th, and at all elevations in extreme north-central Colorado on the 29th.

These warnings were justified by the occurrence of frosts, or by temperatures at which frosts might be expected in those sections, except on the 11th in northern northern New Mexico, Arizona, and Utah, on the 14th in Utah, and in eastern Colorado on the 12th. In the instance last named, when frost was expected at all elevations in the section specified, the area of high pressure advanced eastward more rapidly than was indicated at the time the warning was issued.

Light frost that was not forecast occurred at Flagstaff on the 8th and at Gallup on the 24th. A heavy frost, also without warning, was reported from Salt Lake City on the 20th, although the minimum temperature at that station was 42°.

In a special forecast that was issued for the Gunnison and Uncomphagre fruit valleys on the 20th, temperatures near freezing were predicted for the following night. The thermometer readings on the morning of the 21st ranged from 28° to 34°. A forecast of temperatures about freezing was also issued for the same valleys on the 29th, and the readings on the morning of the 30th ranged from 29° to 35°. The damage in both instances appears to have been confined to tender vegetation.—

J. M. Sherier.

# SAN FRANCISCO FORECAST DISTRICT.

The month opened with a period of unsettled and showery weather covering the first two days in California and the southern Plateau and the first eight days in western Washington. On the 18th a storm from the north Pacific passed inland far enough south to give the first general rain over the north Pacific States. There was a showery period over northern California on the 17th, 18th, and 19th and again on the 25th. Ample warnings were issued to fruit and raisin driers and no damage resulted. On the 30th a storm of the Sonora type caused heavy rains

in southern California, which probably did considerable damage to drying fruit and beans in that section. This storm moved rapidly north from the Gulf of California and rain had begun in the extreme south before warnings were issued.

A warm wave covered California from the 25th to the 29th and on the 26th at San Luis Obispo the record for

high temperature in September was broken.

Frost warnings were issued on the 10th, 12th, 13th, 16th, and 20th in the Plateau region, and by the close of the month most of the stations in that section had either reported killing frosts or asked that frost warnings cease for the season.

Storm warnings were issued as follows: On the 20th, southwest warnings, mouth of Columbia River and Washington stations; 23d and 25th, southwest warnings at all Oregon and Washington stations; 27th, southwest warnings at the mouth of the Columbia River and Washington stations; 28th, northwest warnings at Eureka, Mendocino, and Fort Bragg. Advisory warnings were sent to all Washington and Oregon stations on the 23d; and small craft warnings were ordered at Eureka, Mendocino, and Fort Bragg on the 28th.

The following rain warnings were issued for the benefit of fruit driers: 1st, northern California; 3d, central coast and San Francisco Bay sections; 13th, San Francisco Bay section and Sacramento Valley; 17th, northern California, and 30th, California.—G. H. Willson.

627-4/(73) RIVERS AND FLOODS.

By H. C. FRANKENFIELD, Meteorologist.

#### THE TEXAS FLOODS.

Torrential rains on September 9 and 10 caused general floods in the rivers of central and southern Texas. Over the drainage area of the San Antonio River, and thence northeastward through Williamson and Milan Counties into Bell County, the rain was excessive in amount and

apparently unprecedented in rate of fall.

The rains were caused by a storm of tropical character that apparently moved inland, and to the north-north-eastward, south of Tampico, Mexico, on September 7. Barometric evidence as to its movement subsequent to September 7 is lacking, but the times of beginning of heavy rains, as noted in the next paragraph, indicate the progression northeastward of an atmospheric disturbance the nature of which can not be definitely stated. At 8 a m., September 8, a 24-hour rainfall of 6 inches was reported at Laredo, Webb County, Tex., on the Rio Grande. At 8 a. m., September 9, 4.05 inches was reported at Encinal, La Salle County, about 40 miles north of Laredo; and at 8 a. m., September 9, 5.70 inches at Hondo, Medina County, about 85 miles north of Encinal. These rains indicated a slow yet apparently steady northward movement of the excessive rain. The floods in the larger rivers were not severe except over the middle and lower Brazos drainage areas.

The following table shows the amount of rainfall from all available places of observation. Some of the reports in the San Antonio district were not official, and at 13 of the stations improvised gages, such as cans and barrels, were used. These latter were afterwards visited and the measurements carefully checked. This table was prepared by Mr. B. Bunnemeyer, in charge of the Weather Bureau office at Houston, Tex. The data for the outlying points near San Antonio are not included in Table I, but are shown in the table immediately following. Their positions may be identified by the corresponding numbers on the chart accompanying the San Antonio report. (See p. 495, this Review.)

TABLE 1.—Rainfall reported September 7 to 11, 1921, arranged by drainage basins.

### 1. RIO GRANDE DRAINAGE.

Station.	County.	Sept.	Scpt.	Sept.	Sept.	Sept.	Total
		7.	8.	ý. 	10.	11.	1 0684
stownsville	Cameron	1.07	0,68	1.18			2. 9
Eagle Pass	Maverick		0.07	0.05			0.1
ort Clark	Kinney		0.28		<b>-</b>		6.2
aredo	WebbCameron	0.20	6.00	-5-14-			6. 20 2. 83
Mission	Hidalgo	0.42	0.12	2.14			0.5
Rio Grande	Starr		0.15	1		l	0.1
an Benito	Cameron		0.13	0, 78			1.8
	2. NUECES DRA	INA	ЭE.				
Big Wells	Dimmit	 	0.23	1.39	0.02	<b> </b>	1.0
Dilley Encinal	Frio La Salle	i	0.06	1.62 4.05	1.81		3.4
leorge West	Live Oak	0.22	2. 45	5. 55	0.10		
Hondo	Medina	i		0.65	5. 70	1	6.3
La Pryor	Zavalla	·	0.80	0.02		0.02	0.8
Mathis Montell	San Patricio	1.53	1.81	0.24	T.	0.04	3.5
Pearsall	Uvalde	10,00	0.59 1.35	1, 47			
Rossville	Atascosa	0.02	0.13	1.16			1.3
abinal	Uvalde	0.11	0.19	1.36			
Whitsett	Frio. Atascosa Uvaldo. Live Oak		1.37	5. 45		-	6.8
	3. SAN ANTONIO	DRAI	NAGE	;			
Boerne	Kendall. Goliad. Karnes. do. Bexar.	0 50	0. 23	6. 45	0.04	0, 36	6.7
vollad	Kornes	. v. 56	0.49	2. 20 4. 51	0.03		3.6
Rungo	do	1	0.81	2.65			3.4
an Antonio	Bexar.		0. 54	6. 84	T.	ļ	7.3
	4. GUADALUPE I	RAIN	AGE.		·	.!	<del>'</del>
Blanco	Blanco	0.18	0.15	1, 72	5. 80		7.8
Cuero	Blanco De Witt	0. 22	1.37	0.46	1		. 2.0
Gonzales	Gonzales		. 0. 12	1.63	1.24		.1 2,9
Kerrville	Gonzales Kerr Caldwell	0.02	0.01	0. 26	2.87	0.04	
Luling New Braunfels	Caldwell		0.08	1.50 9.38	0.90		9.5
New Braunier	Comal Hays		2.00		1.50		11.5
San Marcos Victoria	Victoria.	0. 75	0.65	1.02			2.4
· · · · · · · · · · · · · · · · · · ·		<u> </u>	<u> </u>	1		1	
	5. COLORADO DI	T	T	1	Ţ	Т	
Austin	Travis		0.05		4.03	T.	19.2
Columbus	Colorado		0.14	2.00 3.40		T.	2. 4 8. 7
Fairland		0.02	0.49		0.09	1	.  î.i
La Grange	Llano	1	}	0.14	1.65		l î.;
Marble Falls	Rurnett	. T.	0.57	5, 50	11.00	1	17.0
Morris Ranch	Gillespie		. 0.02	5. 50 1. 24 T.	0.24	0.01	1.6
Pierce	Gillespie	. 0.92	3.85	T.	0.06		4.8
Smithville	Bastrop	0.58	0. 28	1.16	1.36		3.8
	6. BRAZOS DR.	AINA	E.				4
Brazoria	Brazoria	0.83	0.88	0.96		0.34	8.1
Brenham		i m	0.01	2 14	0.13	0.04	
Campron	Milam	.) T.	0.01	2.14 0.85	0. 13 0. 23 12. 45	0.04	14.8
Cameron		.) T.	0.01 0.77 0.22	2. 14 0. 85 1. 12	0. 23 12. 45		2.3 14.3 1.4
College Station	Brazos	0.30 T.	0. 01 0. 77 0. 22	2.14 0.85	0. 23 12. 45 0. 07 2. 85		. 3. 9
College Station	Brazos	0.30 T.	0. 22	2. 14 0. 85 1. 12 1. 07	0. 23 12. 45 0. 07 2. 85 1. 00		3. 9 1. 0
College Station Copperas Cove Catesville	Milam Brazos Coryell do Williamson	0.30 T.	0. 01 0. 77 0. 22 0. 06	2. 14 0. 85 1. 12	0. 23 12. 45 0. 07 2. 85 1. 00	1. 43	1. 4 3. 9 1. 0 15. 1
College Station Copperas Cove	Brazos Coryelldo Williamson Hamilton	T. 0.30 T.	0, 22	2. 14 0. 85 1. 12 1. 07	0. 23 12. 45 0. 07 2. 85 1. 00 13. 00	1. 43	1. 4 3. 9 1. 0 15. 1
College Station Copperas Cove. Gatesville Georgetown Hamilton Hompstead	Milam. Brazos Coryell. do. Williamson Hamilton Waller	T. 0.30 T.	0. 22	2. 14 0. 85 1. 12 1. 07 0. 70	0. 23 12. 45 0. 07 2. 85 1. 00 13. 00 0. 06 1. 10	1.43	1. 4 3. 9 1. 0 15. 1 0. 0
College Station Copperas Cove. Gatesville Georgetown Hamilton Hompstead Lampasns Navasota	Milam. Brazos Coryell	T. 0.30 T. T.	0. 22 0. 06 0. 50	2. 14 0. 85 1. 12 1. 07 0. 70 0. 77 0. 03	0. 23 12. 45 0. 07 2. 85 1. 00 13. 00	1.43	1. 4 3. 9 1. 0 15. 1 0. 0 1. 3 3. 3
College Station Copperas Cove. Gatesville Georgetown Hamilton Hempstead Lampasas Navasota. Rosenberg	Milam. Brazos. Coryell. do. Williamson. Hamilton. Waller. Lampasas. Grimes. Fort Bend	T. 0.30 T. T.	0. 22 0. 06 0. 50 0. 55 2. 00	2. 14 0. 85 1. 12 1. 07 0. 70 0. 77 0. 03	0. 23 12. 45 0. 07 2. 85 1. 00 13. 00 0. 06 1. 10 0. 53	1.43	1. 4 3. 9 15. 1 0. 0 1. 3 3. 3
College Station Copperas Cove Gatesville Georgetown Hamilton Hempstead Lampasas Navasota Rogenherg	Mism. Brazos Coryell do. Williamson Hamilton Waller Lampasas Grimes Fort Bend Austin	T. 0.30 T. T. 0.40 0.05	0. 22 0. 06 0. 50	2. 14 0. 85 1. 12 1. 07 0. 70 0. 77 0. 03	0. 23 12. 45 0. 07 2. 85 1. 00 13. 00 0. 06 1. 10 0. 53	1.43	1. 4 3. 9 15. 1 0. 0 1. 3 3. 3
College Station Copperas Cove. Gatesville Georgetown Hamilton Hemnstead Lampasas Navasota. Rogenberg	Milam. Brazos. Coryelldo. Williamson. Hamilton. Waller Lampasas. Grimes. Fort Bend Austia. Burleson.	T. 0.30 T. T. 1.50 0.40 0.05	0. 22 0. 06 0. 50 0. 55 2. 00 0, 50	2. 14 0. 85 1. 12 1. 07 0. 70 0. 77 0. 03 1. 22 0. 93 0. 30	0. 23 12. 45 0. 07 2. 85 1. 00 13. 00 0. 06 1. 10 0. 53	1. 43 0. 00 0. 70	1. 4 3. 9 15. 1 0. 0 1. 3 3. 3 1. 0
College Station Copperas Cove Gatesville Georgetown Hamilton Hemnistead Lampasas Navasota Rosenberg Sealy Somerville	Mism. Brazos. Coryell. do. Williamson. Hamilton. Waller. Lampasas. Grimes. Fort Bend. Austin. Burleson.	T. 0.30 T. T. 1.50 0.40 0.05 0.25	0, 22 0, 06 0, 50 0, 55 2, 00 0, 50	2. 14 0. 85 1. 12 1. 07 0. 70 0. 77 0. 03 1. 22 0. 33 0. 30 0. 18	0. 23 12. 45 0. 07 2. 85 1. 00 13. 00 0. 06 1. 10 0. 53	1. 43	1.4 1.0 15.1 1.3 3.3 1.0 1.4 2.6
College Station Copperas Cove Gatesville Georgetown Hamilton Hempstead Lampasas Navasota. Rozenberg. Sealy Somerville Sugarland	Mism. Brazos. Coryell. do. Williamson Hamilton Waller Lampasas. Grimes. Fort Bend Austin Burleson Fort Bend Williamson Bell	T. 0.30 T. 1.50 0.40 0.05 0.25 0.04	0. 22 0. 06 0. 50 0. 55 2. 00 0, 50	2. 14 0. 85 1. 12 1. 07 0. 70 0. 77 0. 03 1. 22 0. 33 0. 30 0. 18	0. 23 12. 45 0. 07 2. 85 1. 00 13. 00 0. 06 1. 10 0. 53	1. 43	1.4 3.9 1.0 15.1 0.0 1.3 3.3 1.6 2.0 24.4
College Station Copperas Cove Catesville Georgetown Hamilton Hemnistead Lampasss Navasota Resenberg Celly Somerville Sugarland Taylor Temple	Mism. Brazos. Coryell. do Williamson. Hamilton. Waller Lampasas. Grimes. Fort Bend Austin Burleson. Fort Bend Williamson. Bell	T. 0.30 T. 1.50 0.40 0.05 0.25 0.04	0, 22 0, 06 0, 50 0, 55 2, 00 0, 50	2. 14 0. 85 1. 12 1. 07 0. 70 0. 77 0. 03 1. 22 0. 93 0. 30	0. 23 12. 45 0. 07 2. 85 1. 00 13. 00 0. 06 1. 10 0. 53	1. 43 0. 00 0. 70 	1.4 3.9 1.0 15.1 0.0 1.3 3.3 1.6 2.0 24.4
College Station Copperas Cove Copperas Cove Gatesville Georgetown Hamilton Hempstead Lampasas Navasota. Rozenberg Scaly Somerville Sugarland Taylor Taylor Temple.	Mism. Brazos. Coryell. do Williamson. Hamilton. Waller Lampasas. Grimes. Fort Bend Austin Burleson. Fort Bend Williamson. Bell	T. 0.30 T. T. 1.50 0.40 0.05 0.04 0.04 0.04	0. 22 0. 06 0. 50 0. 55 2. 00 0. 50 1. 95 0. 28	2. 14 0. 85 1. 12 1. 07 0. 70 0. 77 0. 03 1. 22 0. 33 0. 30 0. 18	0. 23 12. 45 0. 07 2. 85 1. 00 13. 00 0. 06 1. 10 0. 53	1. 43 0. 00 0. 70 	1.4 3.9 1.0 15.1 0.0 1.3 3.3 1.6 2.0 24.4
College Station Copperas Cove Catesville Georgetown Hamilton Hemustead Lampasas Navasota Rovenherg Sealy Somerville Sugarland Taylor Temple Valley Junction  Alice	Mism. Brazos. Coryell. do Williamson Hamilton Waller Lampasas. Grimes. Fort Bend Austin Burleson. Fort Bend Williamson Bell. Robertson.  7. COÁST DRA Jim Wells.	T. 0.30 T. 1.50 0.40 0.05 0.25 0.04 0.04	0. 22 0. 06 0. 50 0. 55 2. 00 0. 50 1. 95 0. 28	2. 14 0. 85 1. 12 1. 07 0. 70 0. 77 0. 03 1. 22 0. 93 0. 30 0. 18 16. 11 0. 35 0. 25	0. 23 12. 45 0. 07 2. 85 1. 00 13. 00 0. 06 1. 10 0. 53 0. 50 0. 27 7. 87 9. 00 2. 00	1. 43 0. 00 0. 70 0. 18 2. 55 0. 32	1.4 3.6 15.1 0.0 1.3 3.3 3.6 1.4 0.8 24.4 11.5 2.5
College Station Copperas Cove Gatesville Georgetown Hamilton Hempstead Lampasas Navasota. Rozenberg. Scaly Somerville Sugarland Temple Valley Junction  Alice	Mism. Brazos. Coryelldo.  do. Williamson. Hamilton. Waller Lampasas. Grimes. Fort Bend Austin., Burleson. Fort Bend Williamson Bell. Robertson.  7. COÁST DRA	T. 0.30 T. 1.50 0.40 0.05 0.04 0.04 0.04 0.04 0.04 0	0. 22 0. 06 0. 50 0. 55 2. 00 0. 45 0. 28	2. 14 0. 85 1. 12 1. 07 0. 70 0. 77 0. 03 1. 22 0. 93 0. 18 16. 11 0. 35 0. 25	0. 23 12. 45 0. 07 2. 85 1. 00 13. 00 0. 06 1. 10 0. 53 0. 53 0. 57 9. 00 2. 00	1. 43 0. 00 0. 70 0. 18 2. 55 0. 32	1.4 3.6 15.1 10.0 1.3 3.3 1.6 1.4 0.8 24.4 11.8
College Station Copperas Cove Gatesville Georgetown Hamilton Hemustead Lampasss Navasota Recepter Somerville Somerville Sugarland Taylor Temple Valley Junction  Alice Alvin Angleton	Mism. Brazos. Coryell. do Williamson Hamilton Waller Lampasas. Grimes. Fort Bend Austin Burleson Fort Bend Williamson Bell. Robertson.  7. COÁST DRA  Jim Wells Brazoria	T. 0.30 T. 1.50 0.40 0.05 0.25 0.04 0.04	0. 22 0. 06 0. 50 0. 55 2. 00 0. 50 0. 28 0. 28	2. 14 0. 85 1. 12 1. 07 0. 70 0. 77 0. 03 1. 22 0. 93 0. 18 16. 11 1. 0. 25 0. 25	0. 22 12. 45 0. 07 2. 85 1. 00 0. 06 1. 10 0. 53 0. 50 0. 27 7. 87 9. 00 2. 00	1. 43 0. 00 0. 70 0. 18 2. 55 0. 32	1.4 3.6 15.1 0.0 1.3 3.1 3.6 2.6 24.4 11.6 2.6 11.6 11.8
College Station Copperas Cove Caperas Cove Catesville Georgetown Hamilton Hempstead Lampasas Navasola Rosenberg. Sealy Somerville Sugarland. Taylor Temple Valley Junction  Alice Alvin Angleton Angleton	Mism. Brazos. Coryell. do Williamson Hamilton Waller Lampasas. Grimes. Fort Bend Austin Burleson Fort Bend Williamson Bell. Robertson.  7. COÁST DRA  Jim Wells Brazoria	T. 0.30 T. 1.50 0.40 0.05 0.25 0.04 0.04	0. 22 0. 06 0. 50 0. 55 2. 00 0. 50 0. 28 0. 28	2. 14 0. 85 1. 12 1. 07 0. 77 0. 73 1. 22 0. 93 0. 30 0. 18 16. 11 0. 35 0. 25	0. 22 12. 45 0. 07 2. 85 1. 00 0. 06 1. 10 0. 53 0. 50 0. 27 7. 87 9. 00 2. 00	1. 43 0. 00 0. 70 0. 18 2. 55 0. 32	1.4 1.0 1.3 3.3 3.3 3.4 1.4 0.2 24.4 11.9 2.8 10.8 1.8
College Station Copperas Cove Copperas Cove Catesville Georgetown Hamilton Hempstead Lampasas Navasota Rozenberg Scaly Somerville Singarland Traylor Temple Valley Junction  Alice Alvin Angleton Austwell Heeville	Mism. Brazos. Coryell. do Williamson Hamilton Waller Lampasas. Grimes. Fort Bend Austin Burleson Fort Bend Williamson Bell. Robertson.  7. COÁST DRA  Jim Wells Brazoria	T. 0.30 T. 1.50 0.40 0.05 0.25 0.04 0.04	0. 22 0. 06 0. 50 2. 00 0. 55 2. 00 0. 55 0. 28 0. 28 0. 28 1. 96 1. 12 1. 12 1. 12 1. 12 2. 20	2. 14 0. 85 1. 12 1. 07 0. 77 0. 73 1. 22 0. 93 0. 18 16. 11 1. 25 0. 08 0. 18 0. 18 0. 18 1. 25 0. 25	0. 22 12. 45 0. 07 2. 85 1. 00 13. 00 0. 06 1. 10 0. 53  0. 50 0. 20 2. 00 2. 00 2. 00 2. 00 3. 86 0. 06 0. 06	1. 43 0. 00 0. 70 0. 18 2. 55 0. 32	1.4 1.0 1.5 1.3 1.6 2.6 24.4 11.2 8.0 10.8 1.8 2.6
Hempstead Lampass Navasota Rozenberg Sealy Somerville Sugarland Temple Valley Junction  Alice Alvin Angleton Anstwell Beeville Corpus Christi	Mism. Brazos. Coryelldodo. Williamson. Hamilton. Waller Lampasas. Grimes. Fort Bend. Austin. Burleson. Fort Bend. Williamson Bell. Robertson.  7. COÁST DRA  Jim Wells. Brazoriado. Refugio. Bee.	T. 0.30 T. 1.50 0.40 0.40 0.05 0.25 0.04 0.04	0. 22 0. 06 0. 50 0. 55 2. 00 0. 50 1. 95 0. 28 4. 90 1. 12 1. 76 2. 20 0. 8	2. 14 0. 85 1. 12 1. 07 0. 77 0. 73 1. 22 0. 93 0. 18 16. 11 1. 25 0. 08 0. 18 0. 18 0. 18 1. 25 0. 25	0. 22 12. 45 0. 07 2. 85 1. 00 13. 00 0. 06 1. 10 0. 53  0. 50 0. 20 2. 00 2. 00 2. 00 2. 00 3. 86 0. 06 0. 06	1. 43 0. 00 0. 70 0. 18 2. 55 0. 32	3.6 15.1 0.0 15.1 0.8 1.6 2.6 24.4 11.6 2.8 1.8 1.8 2.6 4.4 2.7 4.4 2.7 4.4 2.7 4.4 4.2 7.4 4.2 7.4 4.2 7.4 7.4 7.4 7.4 7.4 7.4 7.4 7.4 7.4 7.4
College Station Copperas Cove. Gatesville Georgetown Hamilton Hemnistead Lampasas Navasota. Rosenberg Scaly Somerville Sugarland Taylor Temple Valley Junction  Alice Alvin Angleton Austwell Heeville Corpus Christi. Danevang	Mism. Brazos. Coryelldodo. Williamson. Hamilton. Waller Lampasas. Grimes. Fort Bend. Austin. Burleson. Fort Bend. Williamson Bell. Robertson.  7. COÁST DRA  Jim Wells. Brazoriado. Refugio. Bee.	T. 0.30 T. 1.50 0.40 0.40 0.05 0.25 0.04 0.04	0. 22 0. 06 0. 50 2. 00 0. 55 2. 00 0. 55 0. 28 0. 28 0. 28 1. 96 1. 12 1. 12 1. 12 1. 12 2. 20	2. 14 0. 85 1. 12 1. 07 0. 77 0. 73 1. 22 0. 93 0. 18 16. 11 1. 25 0. 08 0. 18 0. 18 0. 18 1. 25 0. 25	0. 22 12. 45 0. 07 2. 85 1. 00 13. 00 0. 06 1. 10 0. 53  0. 50 0. 20 2. 00 2. 00 2. 00 2. 00 3. 86 0. 06 0. 06	1. 43 0. 00 0. 70 0. 18 2. 55 0. 32	3.6 1.5.1 0.0 3.3 3.3 1.4 0.8 2.4 4.1 1.6 2.5 1.8 2.4 2.4 4.1 1.8 2.4 4.2 7.4 4.4 4.2 7.4 4.4 4.2 7.4 4.4 4.4 4.4 4.4 4.4 4.4 4.4 4.4 4.4
College Station Copperas Cove Copperas Cove Gatesville Georzetown Hamilton Hempstead Lampasas Navasola Rosenberg. Sealy. Somerville Sugarland Taylor Temple Valley Junction  Alice Alvin Angleton Austwell Heeville Danevang Edna Edna Edna Edna	Mism. Brazos. Coryelldo. Williamson. Hamilton. Waller Lampasas. Grimes. Fort Bend Austlu., Burleson. Fort Bend Williamson Bell. Robertson.  7. COÁST DRA  Jim Wells. Brazoriado. Refugio. Bee Nuces. Wharton. Jackson. Brooks.	T	0. 22 0. 06 0. 50 0. 55 2. 00 0. 55 0. 25 0. 25	2. 14 0. 85 1. 12 1. 07 0. 77 0. 73 1. 22 0. 93 0. 18 16. 11 1. 25 0. 08 0. 18 0. 18 0. 18 1. 25 0. 25	0. 22 12. 45 0. 07 2. 85 1. 00 13. 00 0. 06 1. 10 0. 53  0. 50 0. 20 2. 00 2. 00 2. 00 2. 00	1. 43 0. 00 0. 70 0. 18 2. 55 0. 32 0. 08	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
College Station Copperas Cove Gatesville Georgetown Hamilton Hemistead Lampassas Navasota Recemberg Fealy Somerville Sugarland Taylor Temple Valley Junction  Alice Alvin Austeon Austwell Heeville Corpus Christi Danevang Edna Faffurrias Halletisville	Mism. Brazos. Coryelldo. Williamson Hamilton. Waller Lampasas. Grimes. Fort Bend Austin. Burleson. Fort Bend Williamson Bell. Robertson.  7. COAST DRA  Jim Wells. BrazoriadoRefugio. Bee Nueces. Wharton. Jackson Brooks.	T	0. 22 0. 06 0. 50 0. 55 2. 00 0. 55 0. 28 0. 28 1. 12 1. 76 0. 84 2. 26 0. 84 0. 98 0. 98	2.14 0.85 1.12 1.07 0.70 0.77 0.03 1.22 0.93 0.18 1.03 0.18 0.18 0.18 1.45 1.50 0.70 1.45 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.5	0. 22 12. 45 0. 07 2. 85 1. 00 13. 00 0. 06 1. 10 0. 53  0. 50 0. 20 2. 00 2. 00 2. 00 2. 00	1. 43 0. 00 0. 70 0. 18 2. 55 0. 32 0. 08	8.0 10.8 1.4 1.6 1.6 1.4 1.6 24.4 11.6 10.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1
College Station Copperas Cove Copperas Corpus Christi. Danevang Failurrias Hallettsville La Parra	Mism. Brazos. Coryelldo. Williamson Hamilton. Waller Lampasas. Grimes. Fort Bend Austin. Burleson. Fort Bend Williamson Bell. Robertson.  7. COAST DRA  Jim Wells. BrazoriadoRefugio. Bee Nueces. Wharton. Jackson Brooks.	T	0. 22 0. 06 0. 50 0. 55 2. 00 0. 55 0. 28 0. 28 1. 12 1. 76 0. 84 2. 26 0. 84 0. 98 0. 98	2. 14 0. 85 1. 12 1. 1. 27 0. 70 0. 77 0. 03 0. 18 1. 22 0. 93 0. 18 16. 11 0. 18 3. 40 0. 18 3. 40 0. 18 0. 13 0. 18 1. 45 1. 5 1. 5 1. 5 1. 5 1. 5 1. 5 1. 5 1.	0. 22 12. 45 0. 07 2. 85 1. 30 0. 06 1. 10 0. 53 0. 27 7. 8. 70 2. 00 2.	0.18 2.55 0.08	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
College Station Copperas Cove. Gatesville Georgetown Hamilton Hemnistead Lampasas Navasota. Rosenberg caly Somerville Sugarland Paylor Temple Valley Junction  Alice Alvin Angleton Austwell Beeville Corpus Christi. Danevang Edna Falfurias Hallettsville La Parra Matagorda	Mism. Brazos. Coryelldo. Williamson Hamilton. Waller Lampasas. Grimes. Fort Bend Austin. Burleson. Fort Bend Williamson Bell. Robertson.  7. COAST DRA  Jim Wells. BrazoriadoRefugio. Bee Nueces. Wharton. Jackson Brooks.	T	0. 22 0. 06 0. 50 0. 55 2. 00 0. 55 0. 28 0. 28 1. 12 1. 76 0. 84 2. 26 0. 84 0. 98 0. 98	2.14 0.85 1.12 1.07 0.77 0.03 1.22 0.33 0.30 0.18 0.18 0.13 0.13 0.14 0.15 0.77 0.78	0. 22 12. 45 0. 07 2. 85 1. 00 13. 00 0. 06 1. 10 0. 53  0. 50 0. 20 2. 00 2. 00 2. 00 2. 00	0.18 2.55 0.08	3.6 1.0 1.5 1.0 0.0 3.6 3.6 2.6 2.6 2.6 2.6 2.6 2.6 2.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3
College Station Copperas Cove Copperas Copp	Mism. Brazos. Coryelldo. Williamson Hamilton. Waller Lampasas. Grimes. Fort Bend Austin. Burleson. Fort Bend Williamson Bell. Robertson.  7. COAST DRA  Jim Wells. BrazoriadoRefugio. Bee Nueces. Wharton. Jackson Brooks.	T	0. 22 0. 06 0. 50 0. 55 2. 00 0. 55 0. 28 0. 28 1. 12 1. 76 0. 84 2. 26 0. 84 0. 98 0. 98	2.14 0.85 1.12 1.07 0.70 0.77 0.03 1.22 0.93 0.30 0.30 0.18 1.12 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03	0.22 12.45 0.07 2.85 1.00 13.00 0.06 1.10 0.53 0.53 0.53 0.53 0.53 0.53 0.60 7.87 9.00 2.00	0.18 2.55 0.08	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
College Station Copperas Cove. Gatesville Georgetown Hamilton Hemnistead Lampasas Navasota. Rosenberg caly Somerville Sugarland Paylor Temple Valley Junction  Alice Alvin Angleton Austwell Beeville Corpus Christi. Danevang Edna Falfurias Hallettsville La Parra Matagorda	Mism. Brazos. Coryelldo. Williamson Hamilton. Waller Lampasas. Grimes. Fort Bend Austin. Burleson. Fort Bend Williamson Bell. Robertson.  7. COAST DRA  Jim Wells. BrazoriadoRefugio. Bee Nueces. Wharton. Jackson Brooks. Lavaca. Kenedy. Matagorda	T	0. 22 0. 06 0. 50 0. 55 2. 00 0. 55 0. 28 0. 28 1. 12 1. 76 0. 84 2. 26 0. 84 0. 98 0. 98	2.14 0.85 1.12 1.07 0.70 0.77 0.03 1.22 0.93 0.30 0.18 1.03 0.25 1.25 0.77 0.78 1.15 0.78 1.15 0.78 1.15 0.78	0.22 12.45 0.07 2.85 1.00 13.00 0.06 1.10 0.53 0.53 0.53 0.53 0.53 0.53 0.60 7.87 9.00 2.00	0.18 2.55 0.32	3.6 1.0 1.5 1.0 0.0 3.6 3.6 2.6 2.6 2.6 2.6 2.6 2.6 2.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3